State Revolving Fund Loan Programs
Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT
AND
FINDING OF NO SIGNIFICANT IMPACT

CITY OF EVANSVILLE
SOUTHEASTERN BLVD/BROOKSIDE DR. SEWER SEPARATION CONSTRUCTION PROJECT
PER D PROJECT 6
SRF WW08 13 82 05

DATE: March 23, 2009

TARGET PROJECT APPROVAL DATE: April 23, 2009

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Loan Fund (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address:	**Southeast Blvd/Brookside Dr Sewer Separation Construction Project** **Evansville Water & Sewer Utility** PER D Project 6 1 NW Martin Luther King Jr. Blvd., Room 104 Evansville, IN 47740-0001
SRF Project Number:	WW08 13 82 05
Authorized Representative:	Mr. Harry Lawson, General Manager Evansville Water & Sewer Utility

II. PROJECT LOCATION

Evansville is located in southeastern Vanderburgh County in southwest Indiana. The study area includes the majority of Vanderburgh County with the exception of Union, German, and Armstrong Townships. The city's study area and 20-year service area are one and the same. The Southeast Boulevard and Brookside Drive project area is located on the southeast side of Evansville. The project area is located in the Evansville South USGS topographic quadrangle in Pigeon and Knight Townships, T6S, R10W, sections 28, 32 and 33; see Exhibit 1.

III. PROJECT NEED AND PURPOSE

Evansville's collection system consists of a combination of combined and sanitary sewers, with 23 combined sewer overflows (CSOs) and 70 pumping stations. The Southeast Boulevard and Brookside Drive Sewer Separation project is part of the city's revised CSO Long Term Control Plan (LTCP), which is currently under review by the Indiana Department of Environmental Management (IDEM).

During heavy rainfall, the capacity of the 72-inch combined sewer along Weinbach Avenue is exceeded; this causes stormwater and untreated sewage to surcharge into upstream sewers and to back up into basements; untreated sewage also discharges into the Ohio River and other CSO receiving streams.

Flooding, chronic drainage problems and sewer surcharging problems in the Southeast Boulevard and Brookside Drive area are due to a combination of low topography and inadequate capacity in the combined sewer system serving the area.

The city is implementing the CSO LTCP to reduce the frequency and volume of untreated CSO discharges. Expected results from the proposed sewer separation project include: reduction of basement backups and street flooding, reduction of wastewater discharges to receiving streams, and relief from CSO regulations.

IV. PROJECT DESCRIPTION

The recommended alternative consists of installing a new storm sewer system in the Southeast Boulevard and Brookside Drive neighborhoods. The new system will collect stormwater runoff from Blackford, Bayard and Shady Vista drives, Madison Ave., Frederick St., and Rotherwood west of Frederick St. A new storm sewer trunkline will be routed south along Rotherwood Avenue from Bayard Park Drive, extending west along Ravenswood Drive to Evans Avenue, south on Evans Avenue to Sweetser Avenue, then south to a new outfall located at the Bee Slough.

The proposed sewer separation project includes (see Exhibit 2):

A. Installing approximately 137 storm inlets;

B. Installing approximately twenty-five 48-inch diameter storm manholes;

C. Installing approximately four 60-inch diameter storm manholes;

D. Installing approximately fourteen 84-inch diameter storm manholes;

E. Installing approximately fifteen 96-inch diameter storm manholes;

F. Installing approximately eleven 36-inch diameter storm manholes;

G. Installing approximately 5,845 feet of 96-inch diameter reinforced concrete pipe (RCP) storm sewer;

H. Installing approximately 4,077 feet of 84-inch diameter RCP storm sewer;

I. Installing approximately 1,266 feet of 72-inch diameter RCP storm sewer;

J. Installing approximately 3,469 feet of 48-inch diameter RCP storm sewer;

K. Installing approximately 1,236 feet of 36-inch diameter RCP storm sewer;

L. Installing approximately 940 feet of 24-inch diameter RCP storm sewer;

M. Installing approximately 825 feet of 18-inch diameter RCP storm sewer;

N. Installing approximately 5,047 feet of 15-inch diameter RCP storm sewer;

O. Installing approximately 147,778 cubic yards of backfill for bedding material;

P. Installing approximately 282 feet of pipe bore for a 84-inch RCP storm sewer;

Q. Installing approximately 23,200 square yards of concrete pavement;

R. Installing approximately 49,144 square yards of asphalt pavement;

S. Installing approximately 1,960 feet of sidewalks;

T. Installing approximately 2,960 feet of curbing;

U. Removing approximately 10,200 feet of piping;

V. Replacing approximately 1,900 feet of gas line;

W. Replacing approximately 2,850 feet of water line;

X. Replacing approximately 5,450 feet of sanitary sewers;

Y. Replacing approximately 23 sanitary manholes;

Z. Relocating approximately 123 sewer lateral connections;

AA. Restoring approximately 123 water service connections; and

BB. Replacing approximately six fire hydrants.

Based on a 25-year design storm, the project will keep runoff from approximately 185 acres from entering the combined sewer, which will reduce sewer surcharging, basement backups, street flooding and the volume and frequencies of discharges at CSO 001.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Components	Costs
Site Preparation	$ 1,156,400
96-inch RCP storm sewers	2,484,125
84-inch RCP storm sewers	1,426,950
72-inch RCP storm sewers	253,200
48-inch RCP storm sewers	416,280
36-inch RCP storm sewers	111,240
24-inch RCP storm sewers	47,000
18-inch RCP storm sewers	28,875
15-inch RCP storm sewers	151,410
Backfill - bedding material	5,172,222
Pipe Bore for 84-inch RCP storm sewer	564,000
Storm Inlets	222,550
Storm Manholes	1,074,700
Concrete Pavement	928,000
Asphalt Pavement	283,972

Sidewalks	49,000
Curbs	74,000
Underground Utilities (e.g., water, gas, sanitary sewer)	1,544,400
Erosion Control	50,000
Outfall Headwall	15,000
Mobilization/Demobilization	1,123,733
Traffic Control	802,666
Construction and Equipment Subtotal	**$ 17,979,723**
Contingencies	1,797,972
Total Estimated Construction Cost	**$ 19,777,695**
Non-Construction Costs	
Construction Inspection	2,400,000
Financial/Legal	475,000
Administrative	70,304
Non-Construction Subtotal	**$ 2,945,304**
Total Estimated Project Cost (rounded)	**$22,723,000**

B. Evansville will borrow approximately $22,723,000 from the State Revolving Fund Loan Program (SRF) for a 20-year term at an interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

No Action Alternative: The no action alternative was rejected, since the project area would continue to experience frequent surface flooding and basement backups due to the hydraulically overloaded combined sewers during heavy rains.

Trunkline with Outfall into Weinbach Tunnel: This alternative involves constructing a new storm sewer system in the Southeast Boulevard and Brookside Drive project area that would collect stormwater runoff along Blackford Drive, Brookside Drive, Bayard Park Drive, Southeast Boulevard, and Shady Vista Drive. The stormwater will be routed north via a new stormwater trunkline and connect to a proposed Weinbach Tunnel, which will discharge the stormwater to Pigeon Creek. The 100-year flood elevation for Pigeon Creek is at 381 feet, which is the ground elevation for some of the areas in the project area. Since there is the potential for the sewer system to surcharge when Pigeon Creek reaches flood stage, this alternative was rejected.

Trunkline with Outfall at the K-3 Pump Station: This alternative entails the construction of a new storm sewer system in the same project area mentioned above. The stormwater will be routed south via a new 108-inch stormwater trunkline and connect to the K-3 pump station ponding area. Due to high cost, this alternative was rejected.

Trunkline with Outfall at Bee Slough: Based on cost effectiveness, practicality, technical feasibility, reliability and environmental soundness this is the selected alternative and is described in Section IV above.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed and Undisturbed Areas: The proposed project will occur within previously disturbed streets and easements.

Structural Resources (Exhibits 3, 4, 5, & 6): The Vanderburgh County Interim Report maps show scattered historic sites and the Akin Park Historic District within the project area, but the proposed project will not affect these resources. Any visual, audible or atmospheric effects will be temporary. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Plants and Animals: The construction and operation of this project will not impact state or federally-listed threatened endangered species or their habitat.

Prime Farmland: The proposed project will not cause a conversion of prime farmland.

Wetlands: There are no wetlands in the project area.

100-Year Floodplain: The proposed project is not in a 100-year floodplain.

Surface Waters: There will be no stream crossings associated with the project. The project will not affect Exceptional Use Streams, Outstanding State Resource waters, or Natural and Scenic Rivers.

Groundwater: Dewatering will be employed, if necessary, during construction with the flow being directed to a sedimentation basin prior to being discharged to surrounding waters. The proposed project will not impact a drinking water supply or sole source aquifer.

Air Quality: Construction activities may generate some noise, fumes and dust.

Open Space and Recreational Opportunities: The proposed project's construction and operation will neither create nor destroy open space and recreational activities.

The project will not affect National Natural Landmarks or the Lake Michigan Coastal Zone.

B. Secondary Impacts

The city's Preliminary Engineering Report (PER) states: *The City through the authority of its Council, Board of Directors of Evansville Water and Sewer Utility, or other means will ensure* [that] *future development, as well as future collection system or treatment works projects connecting to SRF-funded facilities, will not adversely impact wetlands, archaeological/historical/structural resources, or other sensitive environmental resources. The City will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM and other environmental review authorities.*

C. Comments from Environmental Review Authorities

This document serves as the first notice to the State Historic Preservation Officer, the Indiana Department of Natural Resources Environmental Unit and the U. S. Fish and Wildlife Service.

In correspondence dated July 15, 2008, the Natural Resources Conservation Service stated: *The proposed project... will not cause a conversion of prime farmland.*

VIII. Mitigation Measures

The following mitigation measures have been identified in the city's PER:

1. *Erosion and sediment control measures required by the project specifications will require that the contractor provide a schedule for clearing, grading, excavating, and restoring disturbed areas, along with a description of measures to be used during construction to ensure erosion/sediment control. The program shall meet all applicable federal, state, and local requirements.*

2. *Natural vegetation will be retained wherever feasible.*

3. *Excavations will be limited to right-of-ways where possible.*

4. *Appropriate agronomic practices (sediment basins, seeding, mulching) will be provided to control runoff, including shoreline and stream crossings, if applicable.*

5. *Drainage systems, including surface and subsurface drainage, will be returned to their natural state as soon as possible, if disturbed.*

6. *Roadways and parking lots will remain stabilized during construction to the extent possible.*

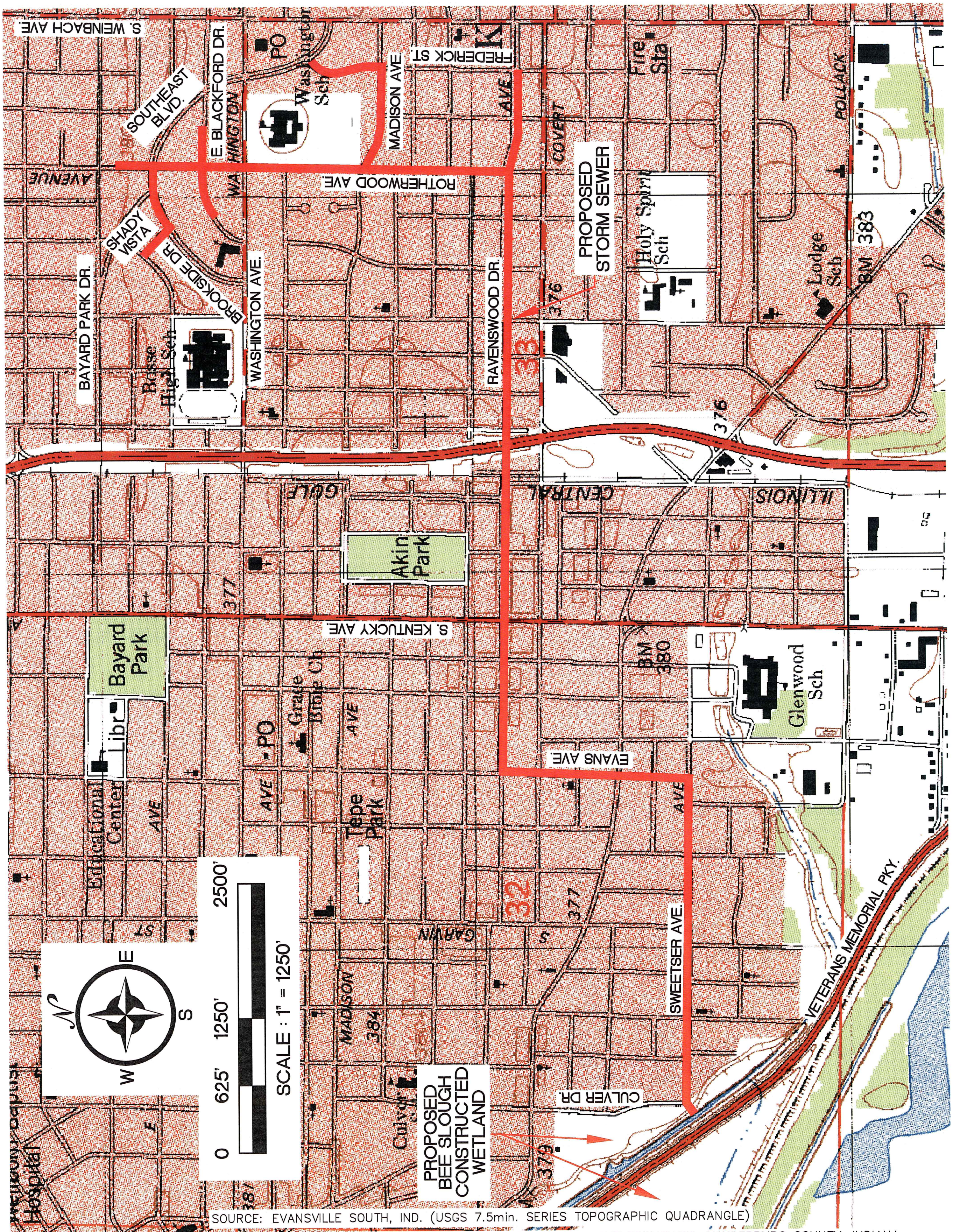
7. *When possible, construction activities will be scheduled to avoid excessively wet conditions.*

8. *No more than 100 feet of open trench will be allowed. Where possible, excavated material will be kept to the upland side of the trench. Excess material will be used elsewhere on the project.*

9. *The existing topsoil will be reused during the restoration process.*

IX. Public Participation

A properly noticed public hearing was conducted on August 19, 2008 at 1:30 p.m. in Room 100 at the Civic Center Complex. Questions were raised during the public hearing concerning which projects had the highest priority and the time frame for completing CSO projects.

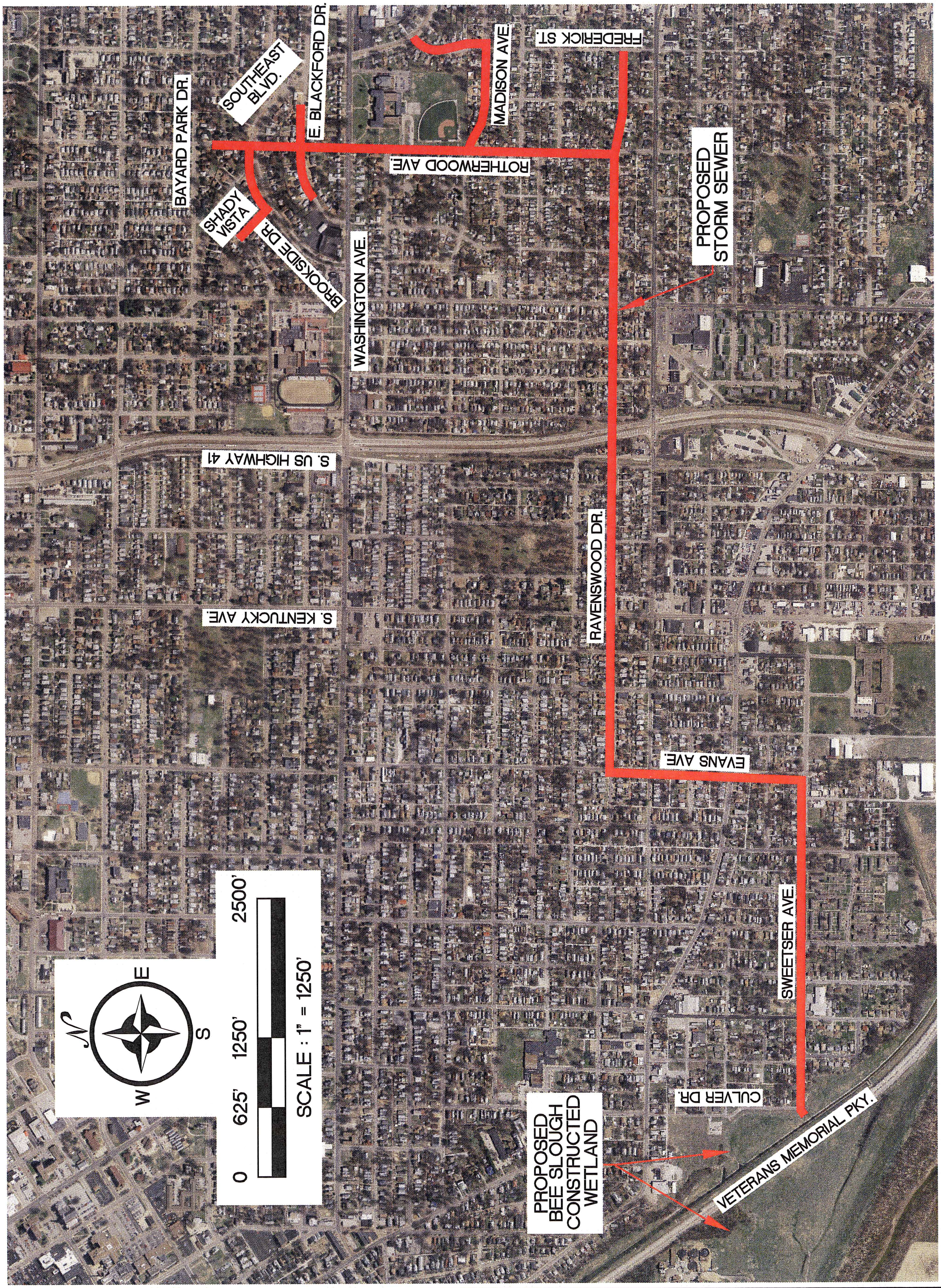


SOURCE: EVANSVILLE SOUTH, IND. (USGS 7.5min. SERIES TOPOGRAPHIC QUADRANGLE)

NOTE: PROJECT WILL OCCUR IN T6S R10W SECTION 28, 32 & 33 IN PIGEON AND KNIGHT TOWNSHIPS, VANDERBURG COUNTY, INDIANA

VS ENGINEERING, INC. 4275 N. HIGH SCHOOL RD. INDIANAPOLIS, INDIANA 46254 TEL. (317) 293-3542 FAX: (317) 293-4737	CITY OF EVANSVILLE PER D - PROJECT 6 SOUTHEAST BLVD. AND BROOKSIDE DR. SEWER SEP. - CONST. **TOPOGRAPHIC MAP**	**EXHIBIT** **1**

REVISED: FEBRUARY 18, 2009



VS ENGINEERING, INC.

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CITY OF EVANSVILLE

PER D - PROJECT 6

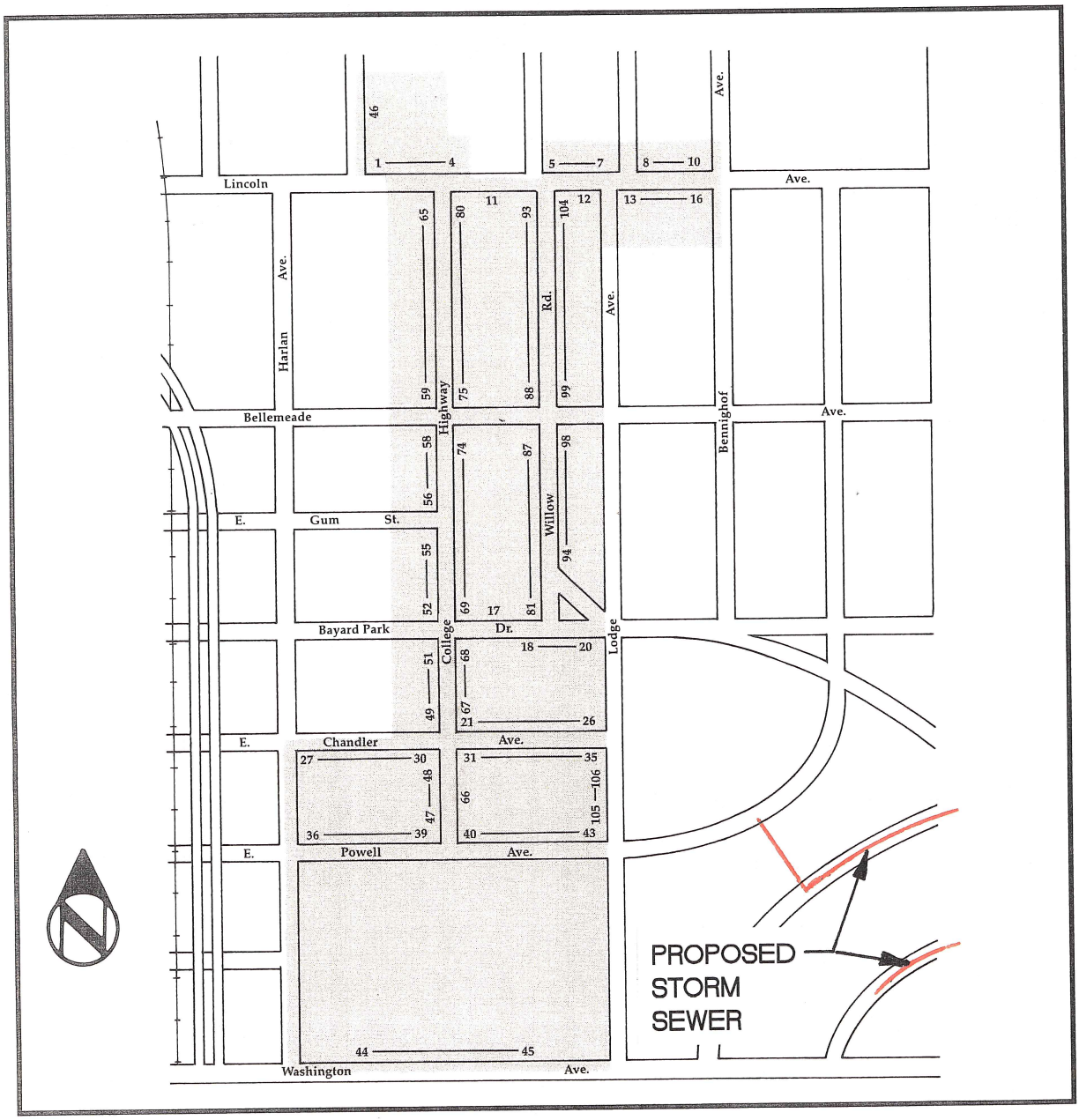
SOUTHEAST BLVD. AND BROOKSIDE DR. SEWER SEP. - CONST.

PROJECT LOCATION MAP

EXHIBIT 2

REVISED: DECEMBER 22, 2008

Lincolnshire Historic District (163-196-41001-106)



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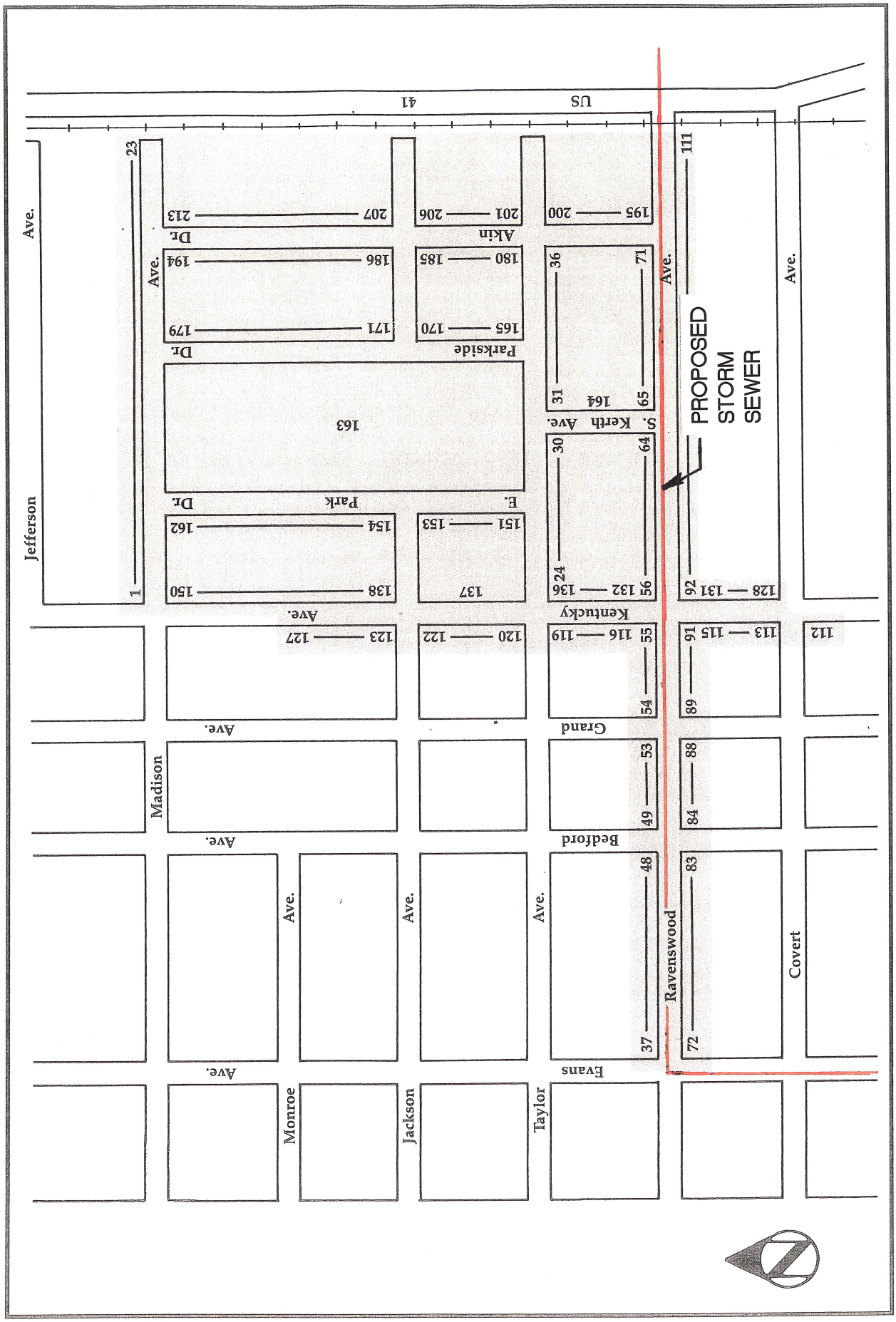
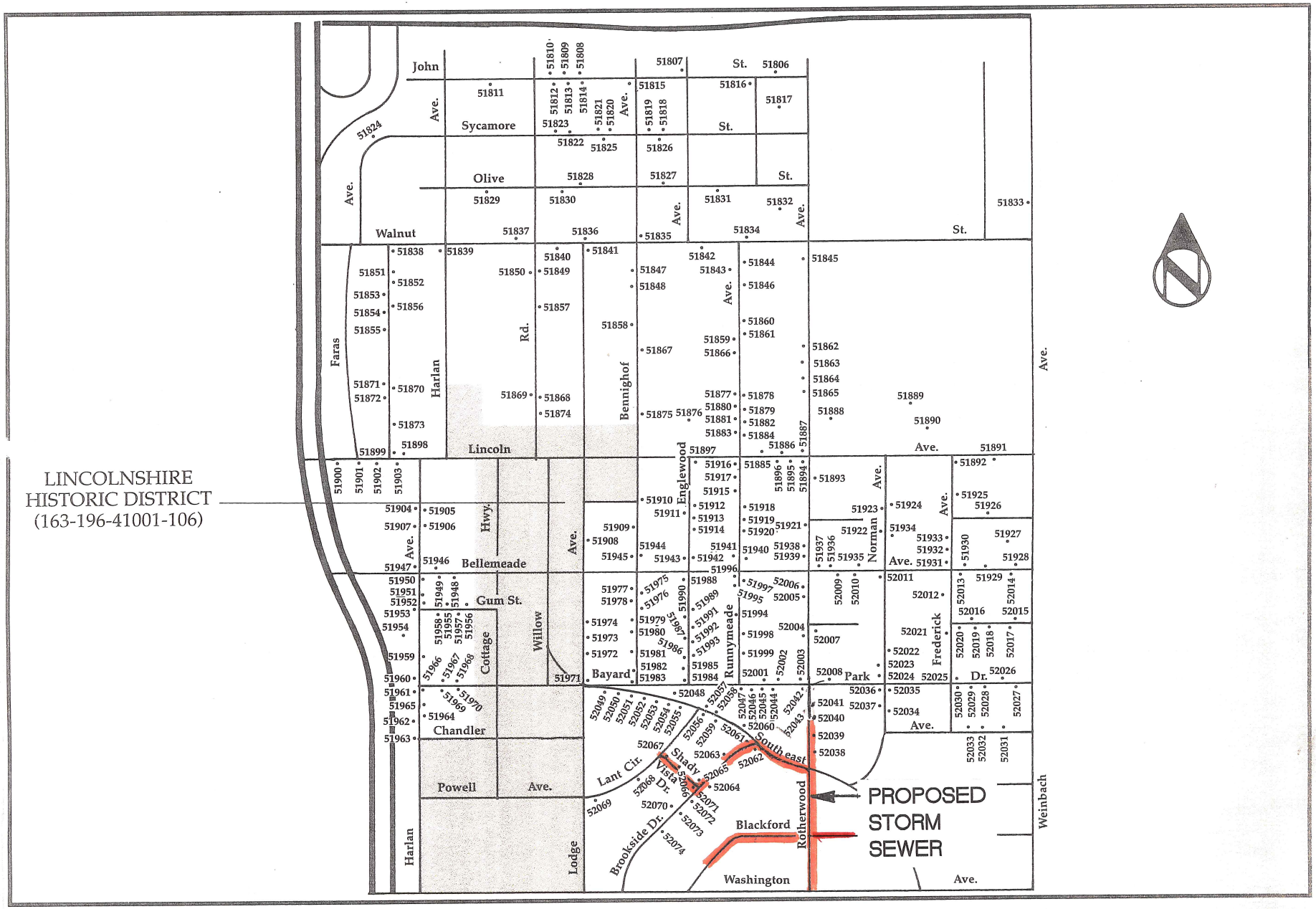
VS ENGINEERING, INC. 4275 N. HIGH SCHOOL RD. INDIANAPOLIS, INDIANA 46254 TEL. (317) 293-3542 FAX: (317) 293-4737	CITY OF EVANSVILLE PER D - PROJECT 6 SOUTHEAST BLVD. AND BROOKSIDE DR. SEWER SEP. - CONST. **HISTORICAL SITES MAP**	**EXHIBIT 3**

Akin Park Historic District (63-196-43001-213)



VS ENGINEERING, INC. 4275 N. HIGH SCHOOL RD. INDIANAPOLIS, INDIANA 46254 TEL. (317) 293-3542 FAX: (317) 293-4737	CITY OF EVANSVILLE PER D - PROJECT 6 SOUTHEAST BLVD. AND BROOKSIDE DR. SEWER SEP. - CONST. **HISTORICAL SITES MAP**	**EXHIBIT 4**

Evansville Scattered Sites (51806-52074)



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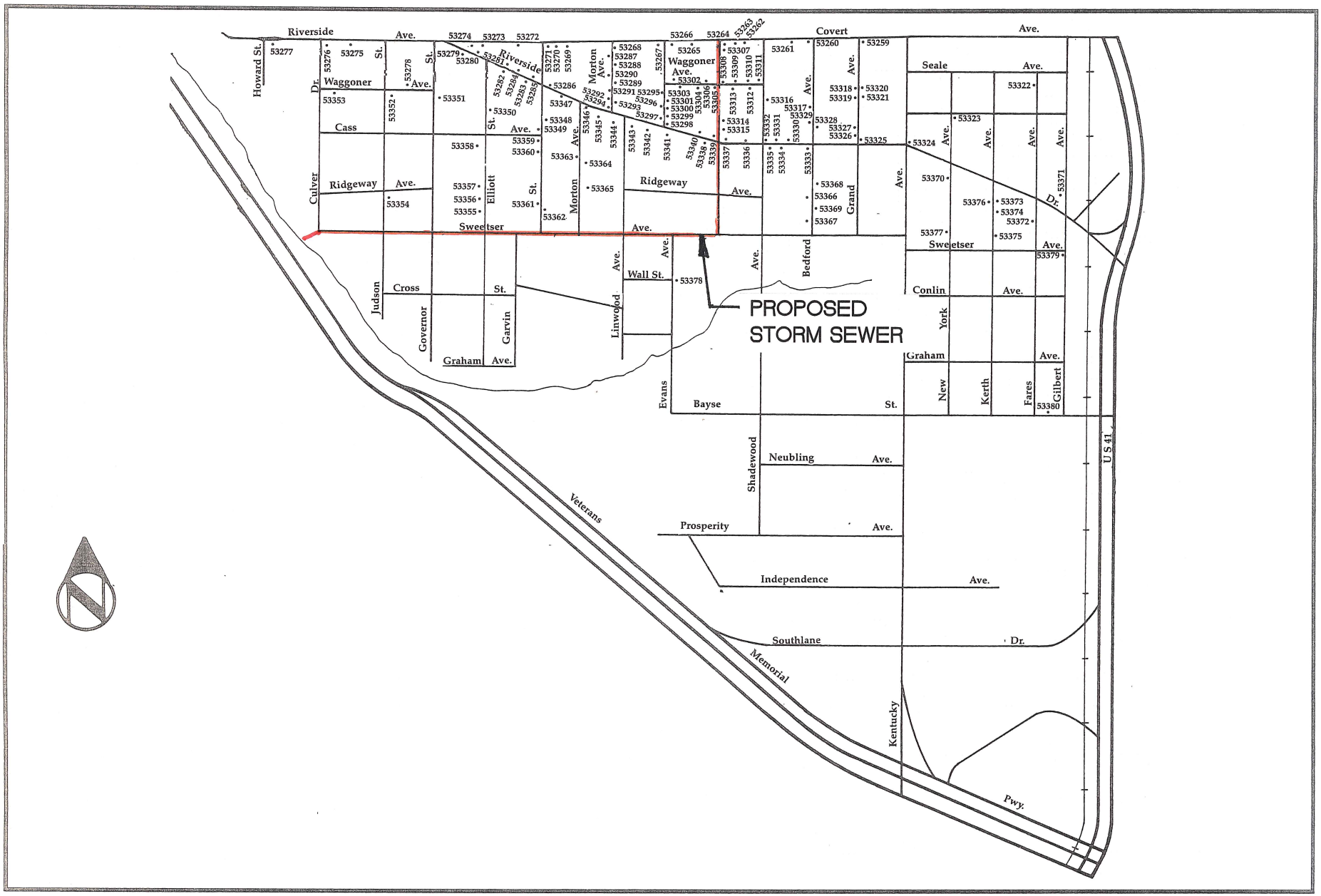
CITY OF EVANSVILLE
PER D - PROJECT 6
SOUTHEAST BLVD. AND BROOKSIDE DR. SEWER SEP. - CONST.

HISTORICAL SITES MAP

EXHIBIT 5

REVISED: DECEMBER 22, 2008

Evansville Scattered Sites (53259-380)



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HISTORICAL SITES MAP

EXHIBIT 6